

Fact Sheet

AES Puerto Rico, Guayama, Puerto Rico Prevention of Significant Deterioration of Air Quality (PSD) 2nd PSD Permit Revision

- **September 18, 1998** - EPA Region 2 issues a final PSD permit to AES Puerto Rico (AES-PRCP) for the construction and operation of a 454 MW coal-fired steam electric cogeneration facility in Guayama, Puerto Rico.
- **Oct 29, 2001** - EPA Region 2 issues a revised PSD permit. AES had requested the changes because AES stated that the worst-case ppm values did not occur simultaneously with the worst-case lb/hour values, as previously thought. Therefore, the ppm values in the permit had to be corrected. However, there would be no increase in the lb/hr, lb/MMBTU, permitted values.
- **April 19, 2004** - AES-PRCP requests that additional changes be made to the PSD permit. These include:
 - 4) Updating the PM₁₀ emissions limit for the circulating fluidized boiler (CFB) boiler stack to account for the stack test data results for condensible PM₁₀. The PM₁₀ limit will increase from 36.9 lb/hr to 73.8 lb/hr and from 0.015 lb/MMBTU to 0.03 lb/MMBTU. The existing PSD permit allows this updating to be done administratively up to a maximum not to exceed 0.05 lb/MMBTU because no reliable PM₁₀ condensible data existed during the preconstruction permit review process.
 - 5) Increasing the size of the emergency boiler feedwater pump diesel engine from 400 hp to 430 hp. During the annual testing of the emergency equipment AES-PRCP will fire the unit at or below 400 hp so that the hourly and annual emissions will not increase above the limits in the current PSD permit.
 - 6) Increasing its annual usage limit of lime from 6,736 tons/year to 8,950 tons/year. This will be accomplished with an increase in truck delivering lime to the facility which will increase the PM₁₀ fugitive emissions by a net 0.0210 ton/year (42 lb/year). Some of the increases in fugitive PM₁₀ emissions from lime handling will be offset by decreases in PM₁₀ from coal, limestone and ash handling.
 - 7) Adding the option of using trucks to haul a limited amount of ash off-site. The PSD permit allows truck delivery of limestone. AES-PRCP would restrict the number of limestone delivery trucks to offset the PM₁₀ emissions from on-site trucks hauling ash.

- 8) Introduction of a new category of startups that applies to startup following outages. This type of startups can take longer than the normal 14 hours allowed (up to 50 hours) in the PSD permit because of the requirement to dry refractory material. This “post-outage startup” is likely to be required up to two times a year, for an average of one startup per boiler.
- 9) Changes to allow more turnovers in the oil storage tanks to store the fuel that will be used during the post-outage startup.
- 10) Change of cover of the inactive coal yard to a layer of compacted and hardened ash instead of dirt and grass.
- 11) In addition, because of the latest changes to the PSD regulations, effective March 3, 2003, EPA will now be requiring that facility records that are required to be maintained by this permit be kept for a period of at least ten years instead of the previous 5-year requirement.

EPA Findings

EPA reviewed AES-PRCP's proposed changes and has determined that the changes will result in a trivial increase of 42 lb/year in PM₁₀ emissions from the facility and that the facility still meets best available control technology (BACT). Furthermore, the changes will not result in a significant impact of short-term PM₁₀, SO₂ or CO. There will be a slight increase (1.2 ug/m³) in the annual average PM₁₀ concentration near the fenceline due to a relocation of storage sites closer to the fenceline. However, the air quality assessment which included the total modeled AES-PR facility plus recent ambient concentrations measured at the Jobos monitors showed that all the impacts are well within the National Ambient Air Quality Standards. We note that no regulations have been promulgated to address the processing of modifications of PSD permits and no definitive policy exists. Region 2 has typically followed the approach taken in a 1987 memo from a section chief in OAQPS. This memo recommends public review of PSD permit modifications even where the increases are below the significance levels. The significance levels are threshold rates in tons per year below which PSD review is normally not required. In the case of AES, the increase is only 0.14% of the significance level and any change in impacts is also trivial. In addition, AES has agreed to amend its Title V permit application to include the new limit so that there will be an opportunity for public review. Given that these changes in emissions/impacts are extremely small even in relation to the significance level, and given that there is no definitive guidance or regulation on permit modifications, we recommend that the proposed changes be handled “administratively,” i.e., with no public review.

Contact: Steven C. Riva
(212) 637- 4074